



## SCIENCE DEPARTMENT ELECTIVES



### **CHEMISTRY**

Chemistry is designed to provide students with a detailed understanding of the interaction of matter and energy through laboratory investigation, manipulation of chemical quantities, and problem solving. This course is designed for students who are planning to attend a four year college program.

### **ECOLOGY**

Ecology is a course designed to investigate interactions of organisms and their environment. The class aims to develop environmental awareness while studying ecological threats and some possible solutions. The course is set up as an alternative elective to Chemistry and Physics or as an additional science elective for students who have already taken Physics and Chemistry.

### **BIOLOGY II (ANATOMY AND PHYSIOLOGY)**

Anatomy and Physiology is an advanced senior-level course designed for students interested in a medically related career. Students will gain knowledge of the fundamentals of structure, the dynamics of physiological processes, and the pathology of the human body.

### **AP BIOLOGY**

Advanced Placement Biology is a senior level course to be taken senior year after Biology 10 and Chemistry have been completed. This lab-centered course is designed to help students focus on the molecular and cellular, the organismal, and the populational content areas. This class is designed for students who intend to pursue a degree in the biological sciences (microbiology, research, zoology, botany, medicine, teaching, etc.).

### **PHYSICS**

Physics emphasizes reasoning and logic to analyze and evaluate data relating to our physical world. We apply mathematical principles, including algebra and trigonometry, to real events involving motion, heat, electricity, and waves.

### **AP PHYSICS B**

This course is for students who are advanced level learners; anyone who takes this class will **not take regular physics**. Advanced Placement Physics B is designed for the student who wishes to take an intensive two period, laboratory-centered college course. Five areas are studied: Newtonian mechanics, fluid mechanics and thermal physics, electricity and magnetism, waves and optics, and atomic and nuclear physics.

### **AP CHEMISTRY**

Advanced Placement Chemistry is second-year, laboratory-centered senior-level chemistry course. Students should attain a depth of fundamental understanding and reasonable competence in dealing with chemical problems. AP Chemistry should enhance the students' abilities to think clearly and to express ideas. Emphasis is placed on chemical calculations